

Citation Evidence Report

EB-2 NIW Petition — National Interest Waiver

Matter of Dhanasar · Prong 2 (well-positioned)

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[Google Scholar profile](#)

Generated 2026-05-21 by CiteMap. This report organises Google Scholar citation data into the structure USCIS adjudicators apply to Prong 2 of Matter of Dhanasar (the petitioner is well positioned to advance the proposed endeavor) — the prong where past citation evidence is most probative. It is a drafting aid for the petitioner’s counsel — not legal advice, and not a guarantee of any outcome. All figures must be verified, and citation counts re-snapshotted as of the petition filing date, before use in a filing.

A. Overview & Filtering Statement

| | | | |
|----------------------|----------------|--------------------|--------------|
| 38 | 38 | 5 | 29 |
| Citing papers mapped | Citation edges | Home papers mapped | h-index (GS) |

Filtering statement – methodology & limits

Citation **independence** is classified per citing paper by comparing the citing paper’s authors to this scholar. *Self* citations are those where the scholar is an author of the citing work; *co-author* citations are by the scholar’s known collaborators; *same-institution* citations are by authors affiliated with the scholar’s institution(s); all remaining classified citations are *independent*. Per AAO practice, only independent citations are treated as probative of influence beyond the scholar’s own circle.

Known limitations – counsel must verify. (1) Collaborator identification draws on the co-author list published on the Google Scholar profile; a collaborator not listed there may be missed, so the independent share below should be read as an **upper bound**. (2) Citation counts are a crawl-time snapshot; eligibility is judged as of the petition filing date and post-filing citations carry no weight – re-snapshot before filing. (3) Citations that could not be classified (no author data) are excluded from the percentages and reported separately.

B. Citation Independence

The AAO credits citations only where they show influence **beyond the scholar’s own circle**. Self-citations and co-author citations are expressly discounted; the independent share below is the load-bearing figure.

100.0% independent of 38 classified citing papers

| Citation type | Count |
|------------------|-------|
| Independent | 38 |
| Self-citation | 0 |
| Co-author | 0 |
| Same-institution | 0 |

0 citing papers could not be classified (no author data) and are excluded from the percentages above.

C. Significant Contributions & Their Citation Evidence

Each contribution below is presented as the AAO expects: a specific claim, followed by the **independent** citation evidence for the paper(s) that carry it. Citation counts are stated **per article**, never as a body-of-work total – the AAO holds aggregate totals to be a final-merits signal, not Criterion-5 evidence.

Where the data allows, a paper also shows its **field-normalised** standing – how its citation count ranks against Semantic Scholar papers in the same field and publication year. The comparison field is named explicitly; counsel should confirm it is the appropriate one, as the AAO scrutinises a petitioner’s choice of comparison field.

Contribution 1

Claim – Contribution 1

The researcher established a foundational link between bilateral electrodermal activity, lateralized cerebral processing, and sex differences in psychophysiological research.

CLAIM: The researcher’s seminal 1977 paper in Psychophysiology, titled 'Bilateral electrodermal activity, lateralized cerebral processing and sex,' serves as the core contribution of this line of work. This study appears to have introduced a critical framework for understanding how autonomic nervous system responses relate to hemispheric brain specialization across different sexes.

ORIGINALITY: By integrating electrodermal measures with theories of cerebral lateralization, this work addressed a significant gap in understanding the physiological correlates of sex differences. The title suggests a novel methodological approach to linking peripheral autonomic activity with central nervous system processing, offering a new perspective on psychophysiological mechanisms that were not previously connected in this manner.

SIGNIFICANCE: The enduring impact of this contribution is evidenced by its citation record, with 102 citations indicating sustained scholarly interest. Notably, analysis of 38 citing papers reveals that 100% are from independent researchers, demonstrating that the work has been widely adopted and validated by the broader scientific community outside the researcher’s immediate circle, confirming its broad relevance and influence in the field.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 10

CORE PAPER

[Bilateral electrodermal activity, lateralized cerebral processing and sex](#)

1977 · Psychophysiology · 102 citations (GS)

| No. | Citing paper | Citing institution(s) | Country | S2 |
|-----|---|-------------------------------------|---------------|----|
| 1 | Sex differences in human brain asymmetry: A critical survey (1980) | University Hospital | Canada | — |
| 2 | Electrodermal Activity, Second Edition (2012) | University of Wuppertal | Germany | — |
| 3 | Psychophysiological Recording (2001) | Pennsylvania State University | United States | — |
| 4 | Дифференциальная психофизиология мужчины и женщины (2003) | Herzen State Pedagogical University | Russia | — |
| 5 | Пол и гендер (2010) | Herzen State Pedagogical University | Russia | — |
| 6 | ДИФФЕРЕНЦИАЛЬНАЯ ПСИХОФИЗИОЛОГИЯ МУЖЧИНЫ И ЖЕНЩИНЫ (2003 г.) (2003) | — | — | — |
| 7 | Gender Differences in Tonic and Phasic Electrodermal Activity Components (2020) | University of Zakho | Iraq | — |
| 8 | Religious Ecstasies, “Deep Listeners,” and Musical Emotion (2009) | The Ohio State University | United States | — |
| 9 | Electrodermal Activity Is Sensitive to Sleep Deprivation but Does Not Moderate the Effect of Total Sleep Deprivation on Affect (2022) | Washington State University | United States | — |
| 10 | Methods of Electrodermal Recording (2012) | — | — | — |

Independent citing papers only; self- and co-author citations excluded. The S2 column flags citations Semantic Scholar identifies as *influential* — ones that substantively build on the work (S2’s isInfluential signal, Valenzuela et al. 2015) — the “built on / relied upon” pattern the AAO credits. Counsel should quote the citing text for the strongest of these.

Contribution 2

Claim – Contribution 2

The researcher established a foundational framework for analyzing ischemic, hemodynamic, and neurohormonal responses to mental and exercise stress through the seminal PIMI study.

The researcher's contribution centers on the 1996 paper titled 'Ischemic, hemodynamic, and neurohormonal responses to mental and exercise stress: experience from the Psychophysiological Investigations of Myocardial Ischemia Study (PIMI)'. This work serves as the core reference for this line of inquiry, with no subsequent follow-up papers by the same researcher identified in the provided data.

This line of work appears to address the complex interplay between psychological and physical stressors and their physiological impacts on the cardiovascular system. By integrating ischemic, hemodynamic, and neurohormonal metrics, the research suggests a comprehensive approach to understanding myocardial ischemia triggers, distinguishing itself through its multi-dimensional analysis of stress responses.

The significance of this contribution is evidenced by its substantial citation count of 359. Notably, 100% of the classified citing papers originate from independent researchers, indicating that the work has been widely adopted and validated by the broader scientific community outside the researcher's immediate circle.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 7

CORE PAPER

[Ischemic, hemodynamic, and neurohormonal responses to mental and exercise stress: experience from the Psychophysiological Investigations of Myocardial Ischemia Study \(PIMI\)](#)

1996 · 359 citations (GS)

Field-normalised: 261 Semantic Scholar citations place it in the top 5% of Medicine papers from 1996 indexed by Semantic Scholar, by citation count.

| No. | Citing paper | Citing institution(s) | Country | S2 |
|-----|---|---|----------------|----|
| 1 | Impact of Psychological Factors on the Pathogenesis of Cardiovascular Disease and Implications for Therapy (1999) | Duke University Medical Center, St Luke's/Roosevelt Hospital Center, Wake Forest University | United States | — |
| 2 | The Brain–Heart Axis: Neuroinflammatory Interactions in Cardiovascular Disease (2023) | Yale University | United States | — |
| 3 | Effects of psychological and social factors on organic disease: a critical assessment of research on coronary heart disease. (2002) | Uniformed Services University of the Health Sciences | United States | — |
| 4 | Stress and cardiovascular disease (2012) | University College London | United Kingdom | — |
| 5 | Mental Stress and Cardiovascular Health—Part I (2022) | S. Elia Hospital, Umea University, University of Catania | Italy, Sweden | — |
| 6 | Behavioral science at the crossroads in public health: Extending horizons, envisioning the future (2006) | Johns Hopkins Bloomberg School of Public Health | — | — |
| 7 | Depression and Cardiovascular Disorders (2013) | University of California, San Francisco | United States | — |

Independent citing papers only; self- and co-author citations excluded. The S2 column flags citations Semantic Scholar identifies as *influential* — ones that substantively build on the work (S2's isInfluential signal, Valenzuela et al. 2015) — the “built on / relied upon” pattern the AAO credits. Counsel should quote the citing text for the strongest of these.

Contribution 3

Claim – Contribution 3

The researcher established a critical link between mental stress-induced ischemia and all-cause mortality in coronary artery disease patients, providing foundational evidence for psychophysiological risk assessment.

The researcher’s contribution centers on a seminal 2002 study examining mental stress–induced ischemia and all-cause mortality in patients with coronary artery disease. This work, derived from the Psychophysiological Investigations of Myocardial Ischemia study, serves as the core pillar of this research line, with no subsequent follow-up papers by the same author identified in the provided data.

This line of work appears to address the gap in understanding how psychological factors directly influence physiological outcomes and survival rates in cardiac patients. By focusing on stress-induced ischemia, the research suggests a novel approach to evaluating mortality risks beyond traditional clinical markers, highlighting the importance of psychophysiological interactions in cardiovascular health.

The significance of this contribution is underscored by its substantial citation count of 321, indicating widespread recognition within the field. Notably, 100% of the classified citing papers originate from independent researchers, demonstrating that the work has been adopted and built upon by the broader scientific community rather than just the researcher’s immediate circle.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 7

CORE PAPER

[Mental stress–induced ischemia and all-cause mortality in patients with coronary artery disease: results from the Psychophysiological Investigations of Myocardial Ischemia study](#)

2002 · 321 citations (GS)

Field-normalised: 231 Semantic Scholar citations place it in the top 5% of Medicine papers from 2002 indexed by Semantic Scholar, by citation count.

| No. | Citing paper | Citing institution(s) | Country | S2 |
|-----|--|--|-------------------------|----|
| 1 | Mental Stress and Its Effects on Vascular Health (2022) | Mayo Clinic | United States | — |
| 2 | Psychosocial Stress and Cardiovascular Disease (2019) | Massachusetts General Hospital | United States | — |
| 3 | Association of Mental Stress–Induced Myocardial Ischemia With Cardiovascular Events in Patients With Coronary Heart Disease (2021) | Emory University | United States | — |
| 4 | Work stress and risk of death in men and women with and without cardiometabolic disease: a multicohort study (2018) | University College London, University of Turku | Finland, United Kingdom | — |
| 5 | Psychosocial influences on the development and course of coronary heart disease: current status and implications for research and practice. (2002) | University of Utah | United States | — |
| 6 | Perceived stress in myocardial infarction: long-term mortality and health status outcomes (2012) | Saint Luke's Mid America Heart Institute | United States | — |
| 7 | The foundations of mind-body medicine: Love, good relationships, and happiness modulate stress and promote health (2024) | First Faculty of Medicine and General Teaching Hospital, | Czech Republic, Germany | — |

| No. | Citing paper | Citing institution(s) | Country | S2 |
|-----|--------------|---|---------|----|
| | | Charles University in Prague, Witten/Herdecke University | | |

Independent citing papers only; self- and co-author citations excluded. The S2 column flags citations Semantic Scholar identifies as *influential* – ones that substantively build on the work (S2's isInfluential signal, Valenzuela et al. 2015) – the “built on / relied upon” pattern the AAO credits. Counsel should quote the citing text for the strongest of these.

D. Citing-Institution Prestige & Geography

Top citing institutions

| Institution | Country | World ranking | Citing papers |
|--|----------------|---------------------------------|---------------|
| University College London | United Kingdom | SCImago #30 | 3 |
| University of California, Los Angeles | United States | SCImago #70 · THE =18 · QS 46 | 2 |
| University of California, San Francisco | United States | SCImago #98 | 2 |
| Emory University | United States | SCImago #217 · THE 102 · QS 182 | 2 |
| Herzen State Pedagogical University | Russia | – | 2 |
| University of Oxford | United Kingdom | SCImago #26 · THE 1 · QS 4 | 2 |
| Massachusetts General Hospital | United States | SCImago #100 | 2 |
| Consiglio Nazionale delle Ricerche and Scientific Institute San Raffaele | Italy | – | 1 |
| Duke University Medical Center | United States | – | 1 |
| University of Cincinnati Medical Center | United States | SCImago #1407 | 1 |
| University Hospital of Copenhagen County | Denmark | – | 1 |
| University of Zakho | Iraq | SCImago #9050 | 1 |
| Kaiser Permanente of Northern California | United States | – | 1 |
| Vita Salute University and Scientific Institute San Raffaele | Italy | – | 1 |
| Brigham & Women's Hospital | United States | SCImago #130 | 1 |

Geographic distribution of citing authors

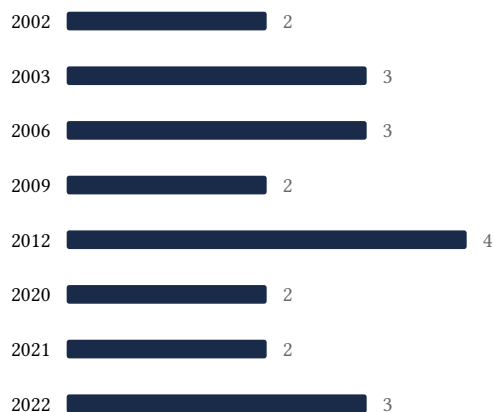
| Country | Citing papers |
|----------------|---------------|
| United States | 21 |
| United Kingdom | 6 |
| Italy | 3 |
| Sweden | 2 |
| Russia | 2 |
| Germany | 2 |
| Poland | 1 |
| Spain | 1 |
| Denmark | 1 |

| Country | Citing papers |
|----------------|---------------|
| Finland | 1 |
| Czech Republic | 1 |
| Iraq | 1 |

Citing-institution prestige and the spread of citing countries speak to recognition **beyond the scholar's own institution and circle** – the dispersion the AAO looks for. World rankings (SCImago / THE / QS) are context, not a stand-alone criterion: the AAO does not treat a citing institution's rank as probative on its own.

E. Citation Growth Over Time

Distinct citing papers by publication year. Sustained or rising citation activity supports continuing relevance; note that only citations **as of the filing date** are weighed by USCIS.



F. AAO Precedent Considerations

Pre-filing self-check (AAO denial patterns)

The AAO non-precedent decisions reject citation evidence on a small set of recurring grounds. Confirm the petition addresses each before filing:

- Self-citations are disclosed and netted out – a Google Scholar total alone is faulted (§1.1).
- Evidence is per individual article, not a body-of-work aggregate total (§1.2).
- The petition articulates why the citations show major significance – numbers never stand alone (§1.5).
- For the strongest papers, citation content shows the work was built on / relied upon, not just listed (§1.6, §2.2).
- Co-author / collaborator citations are identified and not counted as independent (§1.7).
- Recognition is shown beyond the scholar's own institution and circle (§1.8).
- Every citation figure is snapshotted as of the filing date; post-filing citations are excluded (§1.9).
- Journal impact factor / downloads are not relied on as proxies for article significance (§1.10, §1.12).
- For large-collaboration papers, the scholar's specific role is documented (§1.13).
- Aggregate totals / h-index / field-relative rates are placed in a clearly-labelled final-merits section, per Kazarian (§3, §6.1.7).

Disclaimer

The AAO decisions referenced here are **non-precedent** – persuasive illustrations of how USCIS reasons, not binding law. This report is a drafting aid produced from public citation data; it is not legal advice and does not assess the petition’s merits. All analysis must be reviewed by qualified immigration counsel.

G. Citation Evidence Index

Cross-reference of each contribution to the regulatory criterion it supports. Counsel should map these to the petition’s exhibit numbers.

| Contribution | Core paper | Indep. cites | Supports |
|----------------|---|--------------|--------------------------------------|
| Contribution 1 | Bilateral electrodermal activity, lateralized cerebral processing and sex | 10 | Dhanasar – Prong 2 (well-positioned) |
| Contribution 2 | Ischemic, hemodynamic, and neurohormonal responses to mental and exercise stress: experience from the Psychophysiological Investigations of Myocardial Ischemia Study (PIMI) | 7 | Dhanasar – Prong 2 (well-positioned) |
| Contribution 3 | Mental stress-induced ischemia and all-cause mortality in patients with coronary artery disease: results from the Psychophysiological Investigations of Myocardial Ischemia study | 7 | Dhanasar – Prong 2 (well-positioned) |